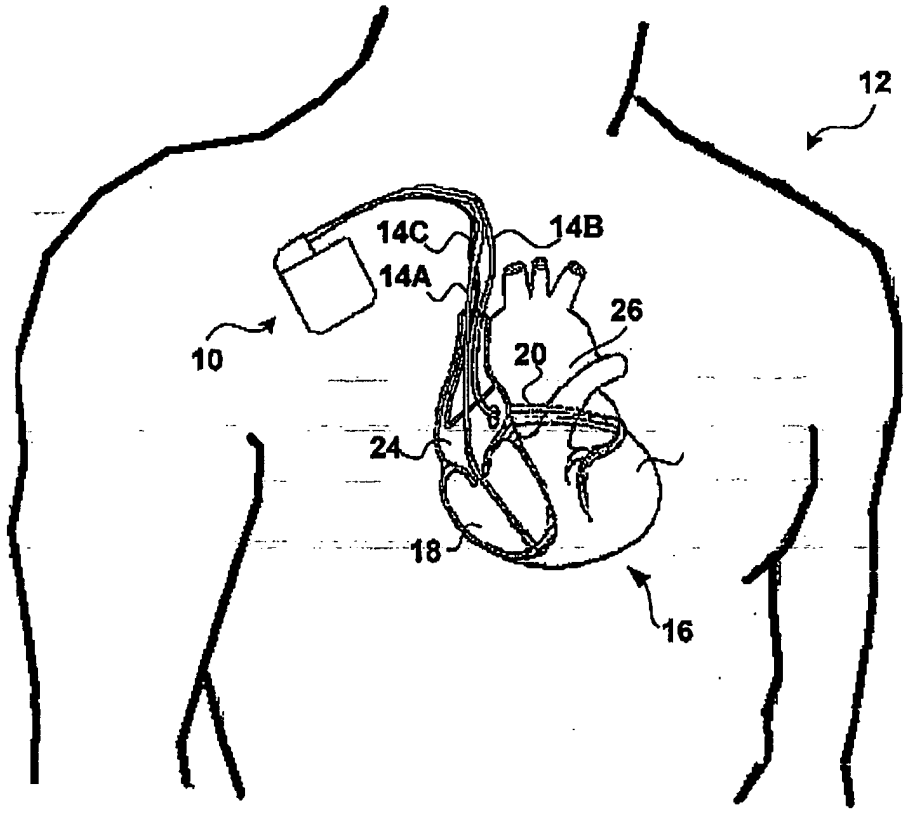

FIG. 1

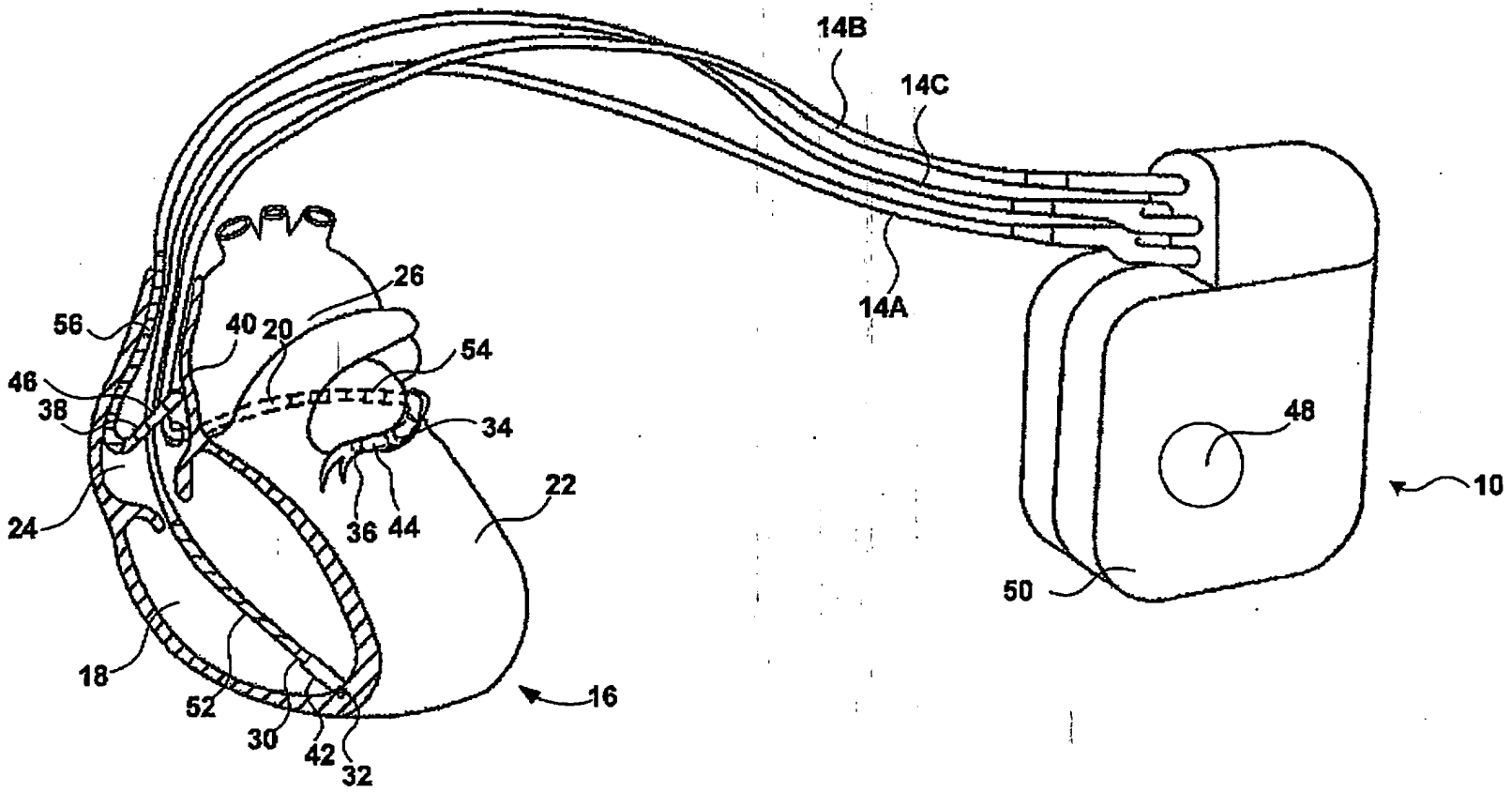
14B
14C
14A
26
56
40
20
54
46
38
34
22
24
36
44
18
52
30
42
32
16
48
10
50

FIG. 2

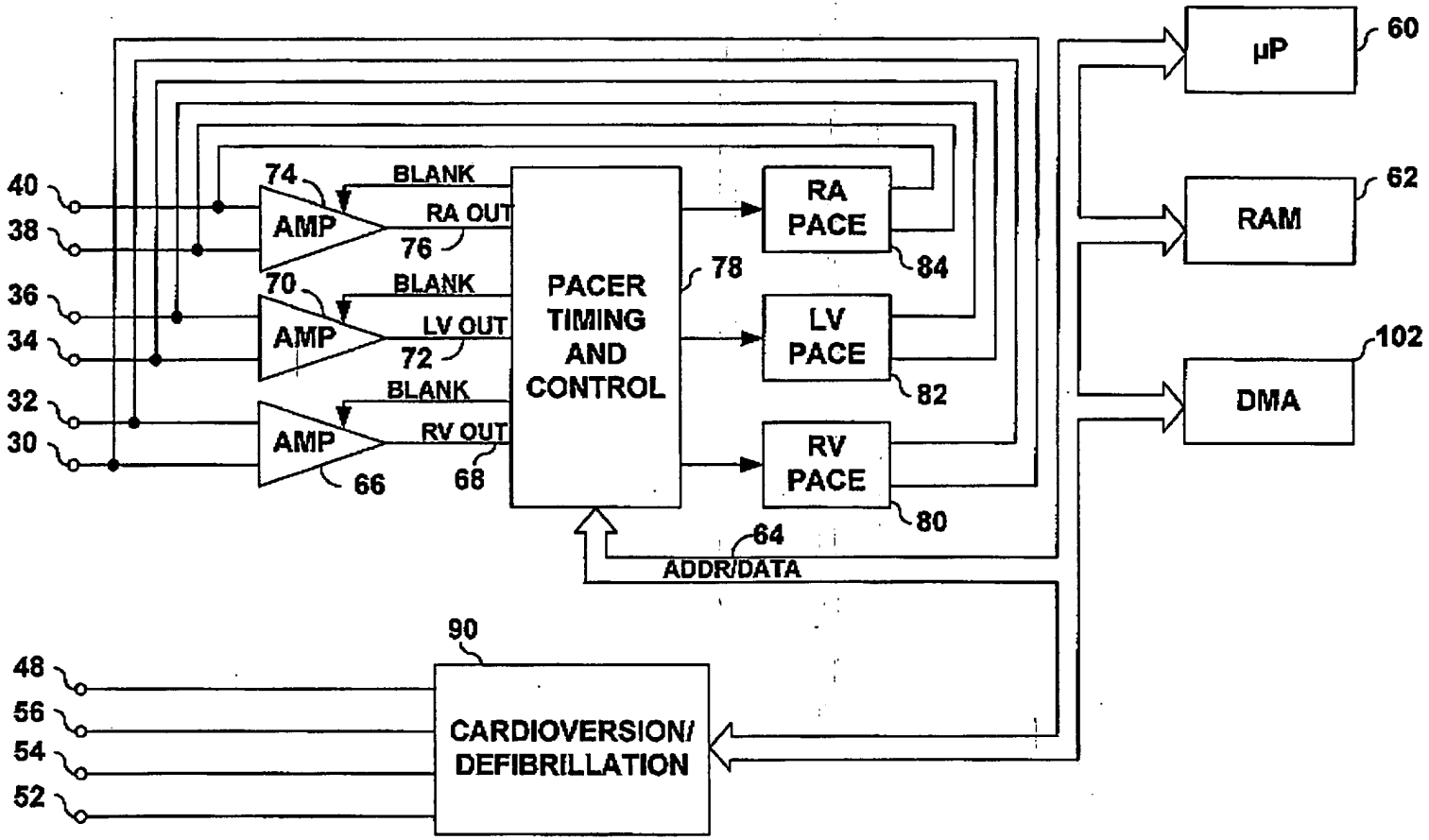
40
38
36
34
32
30
74
70
AMP
AMP
AMP
66
BLANK
RA OUT
76
BLANK
LV OUT
72
BLANK
RV OUT
68
PACER
TIMING
AND
CONTROL
78
RA
PACE
84
LV
PACE
82
RV
PACE
80
64
ADDR/DATA
µP
60
RAM
62
DMA
102
90
48
56
54
52
CARDIOVERSION/
DEFIBRILLATION

FIG. 3

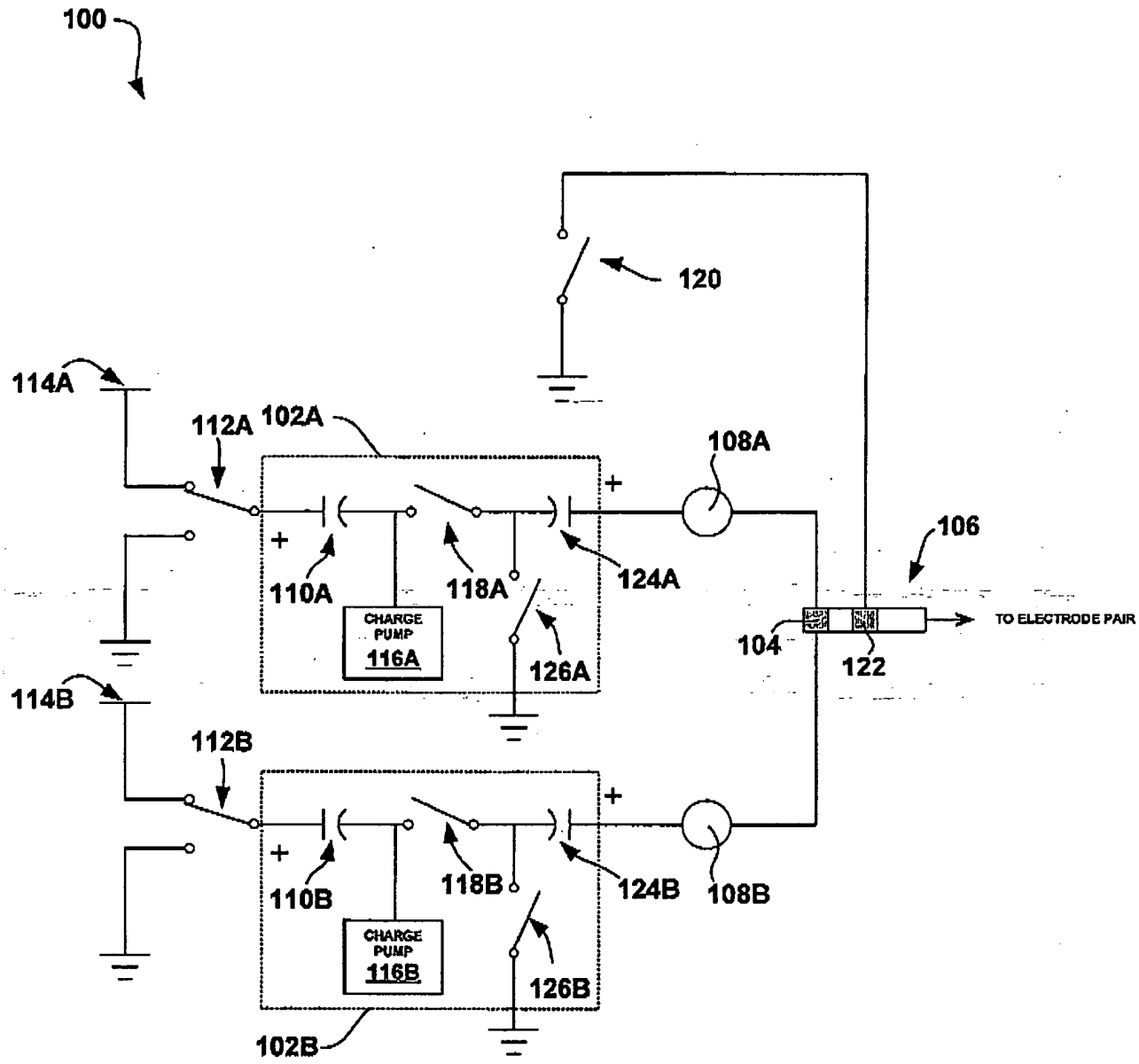
100
120
114A
112A
102A
108A
106
110A
118A
124A
CHARGE PUMP 116A
126A
104
122
TO ELECTRODE PAIR
114B
112B
110B
118B
124B
108B
CHARGE PUMP 116B
126B
102B

FIG. 4

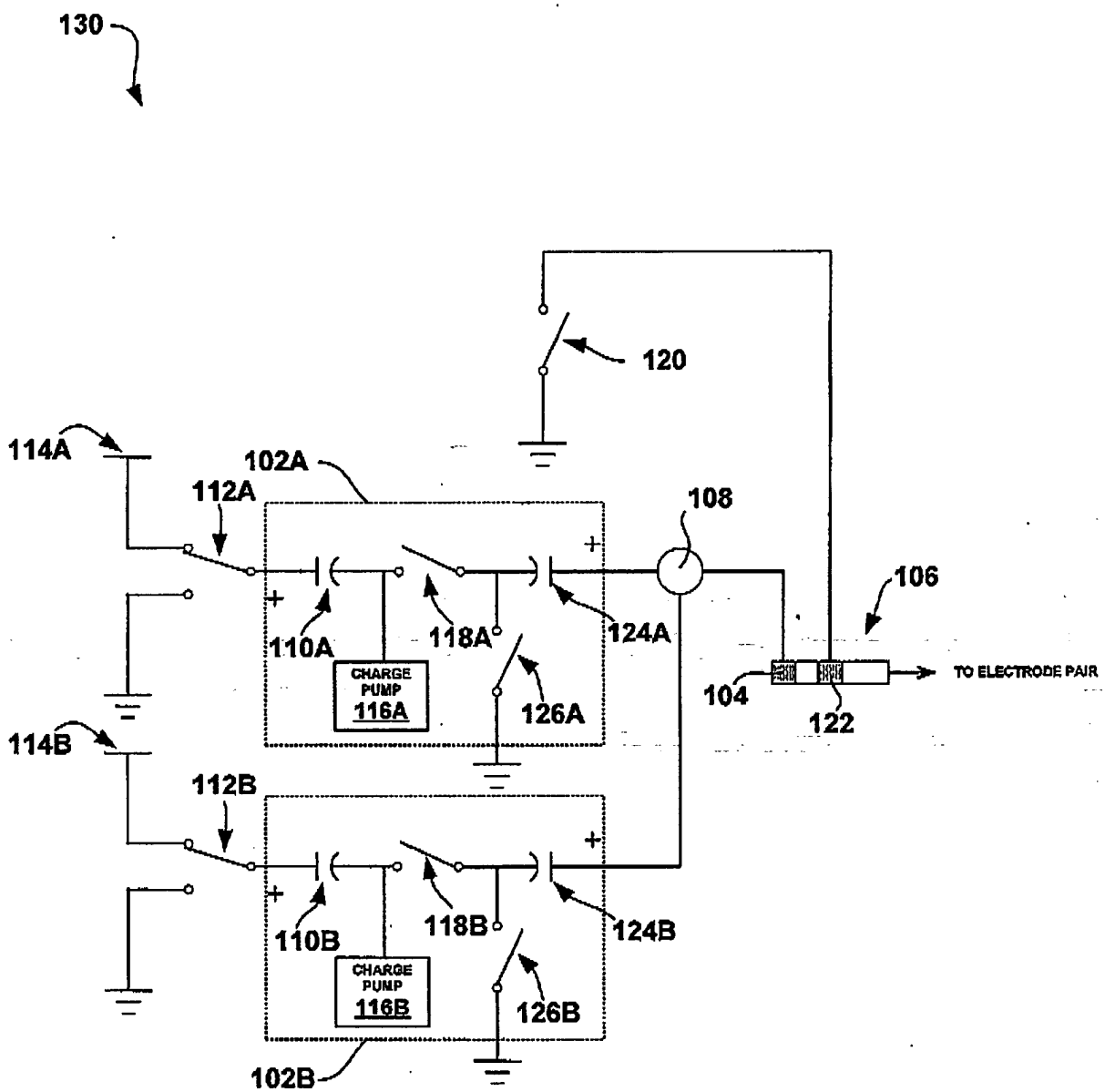
130
120
114A
102A
112A
108
106
110A
118A
124A
CHARGE PUMP 116A
126A
104
122
TO ELECTRODE PAIR
114B
112B
110B
118B
124B
CHARGE PUMP 116B
126B
102B

FIG. 5

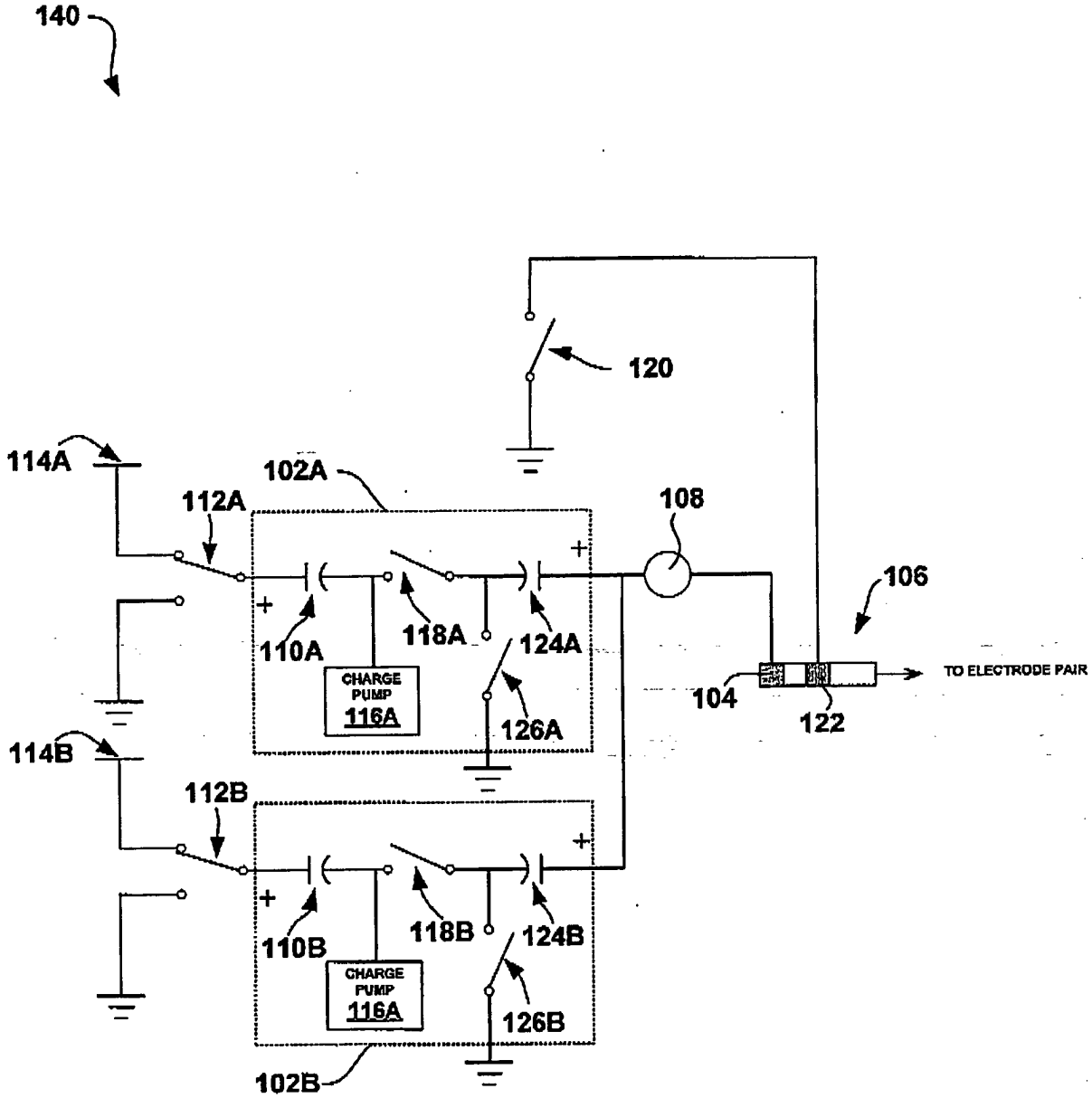
140
120
114A
102A
112A
108
106
110A
118A
124A
CHARGE PUMP 116A
126A
104
122
TO ELECTRODE PAIR
114B
112B
110B
118B
124B
CHARGE PUMP 116A
126B
102B

FIG. 6

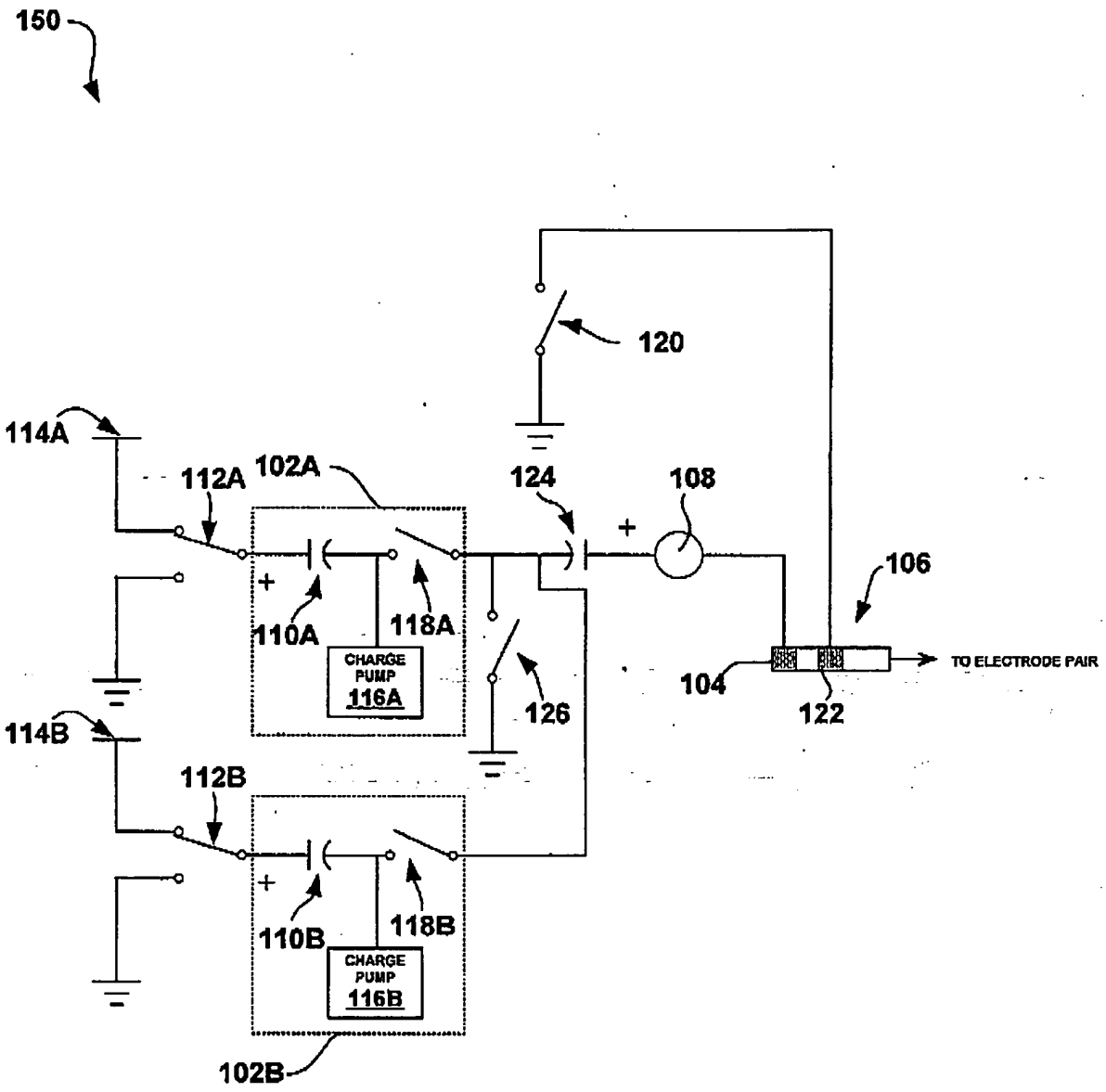
150
120
114A
112A
102A
124
108
106
110A
118A
CHARGE PUMP 116A
126
104
122
TO ELECTRODE PAIR
114B
112B
110B
118B
CHARGE PUMP 116B
102B

FIG. 7

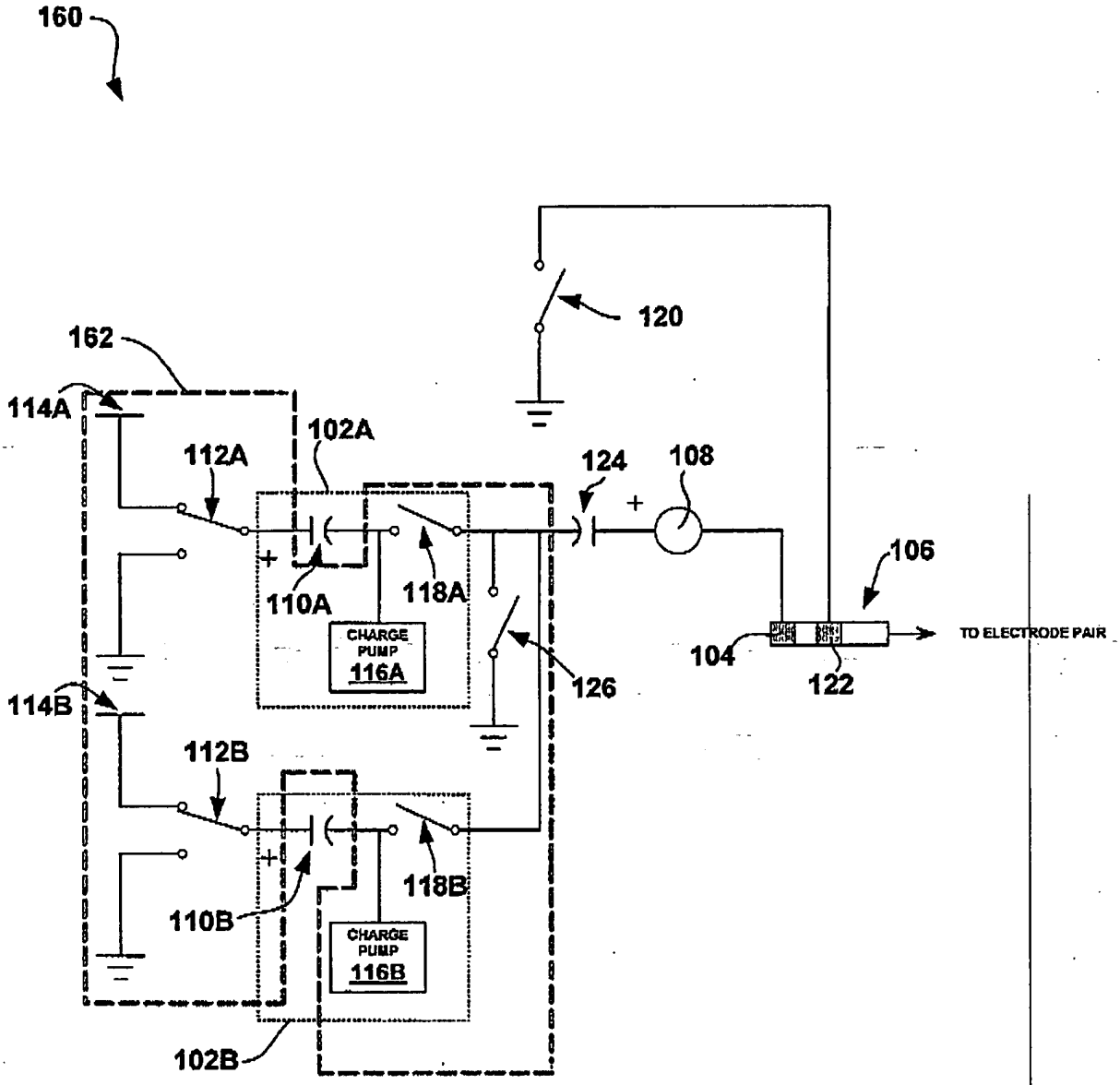
160
162
114A
112A
102A
120
124
108
106
110A
118A
CHARGE PUMP 116A
126
104
122
TO ELECTRODE PAIR
114B
112B
118B
110B
CHARGE PUMP 116B
102B

FIG. 8

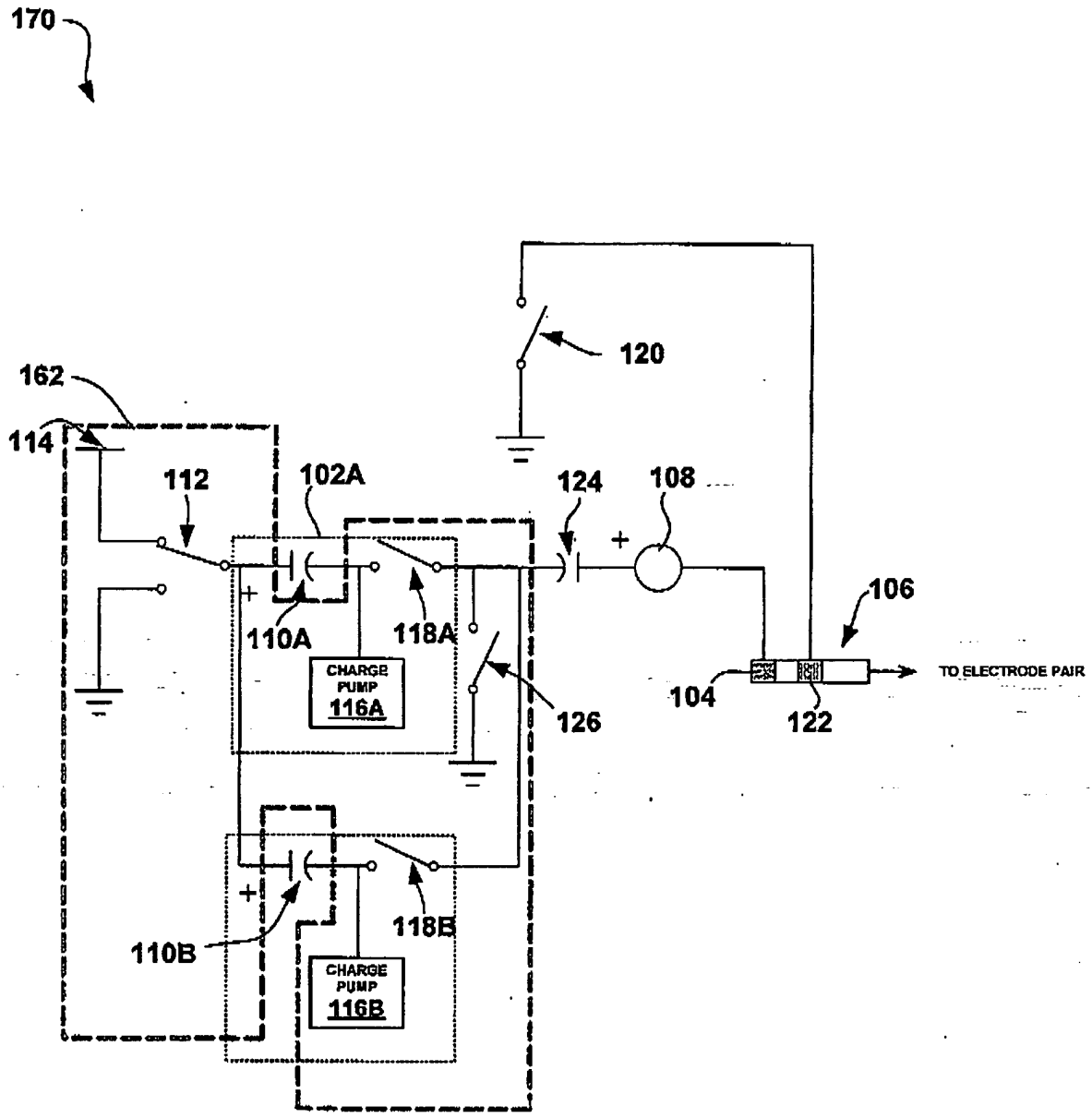
170
162
114
112
102A
120
124
108
106
110A
118A
CHARGE PUMP 116A
126
104
122
TO ELECTRODE PAIR
110B
118B
CHARGE PUMP 116B

FIG. 9

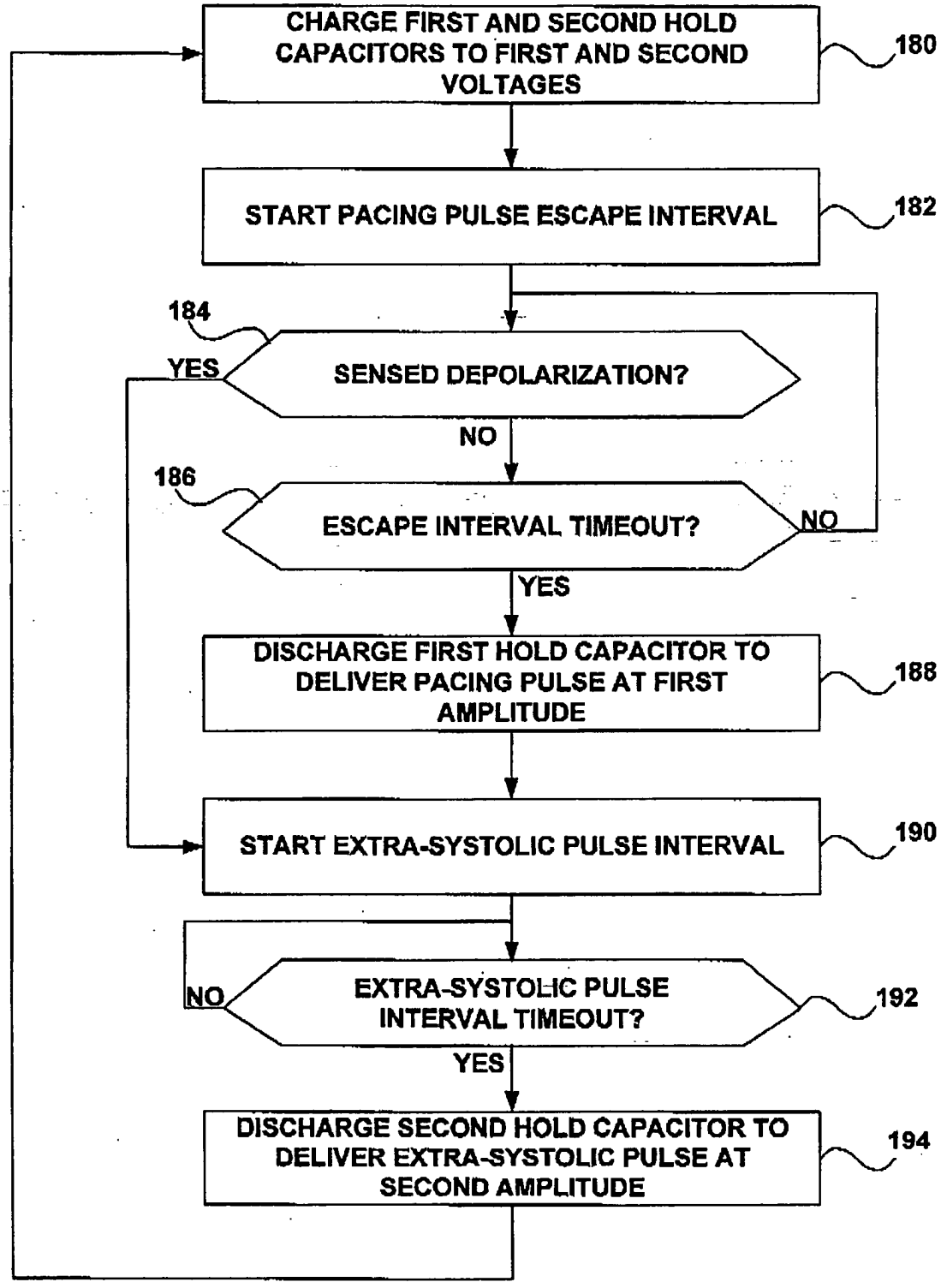
CHARGE FIRST AND SECOND HOLD CAPACITORS TO FIRST AND SECOND VOLTAGES
180
START PACING PULSE ESCAPE INTERVAL
182
184
YES
SENSED DEPOLARIZATION?
NO
186
ESCAPE INTERVAL TIMEOUT?
NO
YES
DISCHARGE FIRST HOLD CAPACITOR TO DELIVER PACING PULSE AT FIRST AMPLITUDE
188
START EXTRA-SYSTOLIC PULSE INTERVAL
190
NO
EXTRA-SYSTOLIC PULSE INTERVAL TIMEOUT?
192
YES
DISCHARGE SECOND HOLD CAPACITOR TO DELIVER EXTRA-SYSTOLIC PULSE AT SECOND AMPLITUDE
194

FIG. 10

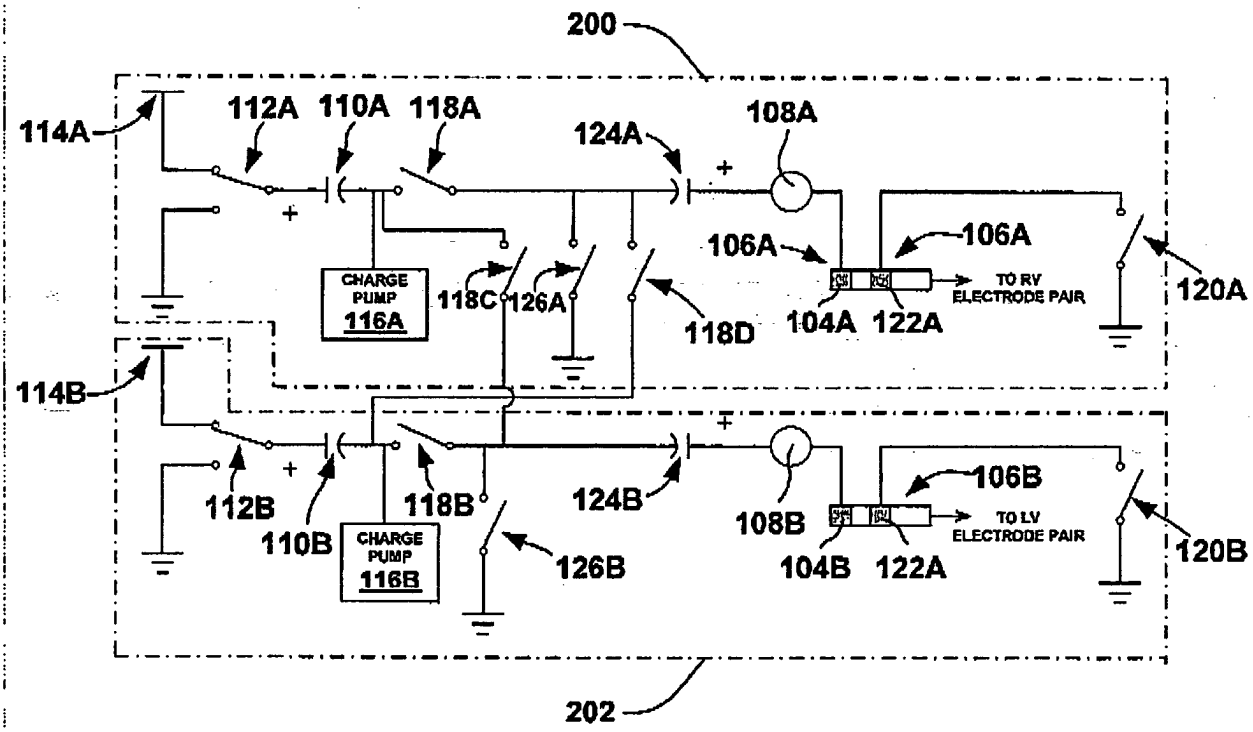
200
114A
112A
110A
118A
124A
108A
106A
106A
CHARGE PUMP 116A
118C
126A
118D
104A
122A
TO RV ELECTRODE PAIR
120A
114B
112B
110B
CHARGE PUMP 116B
118B
126B
124B
108B
106B
104B
122A
TO LV ELECTRODE PAIR
120B
202

FIG. 11

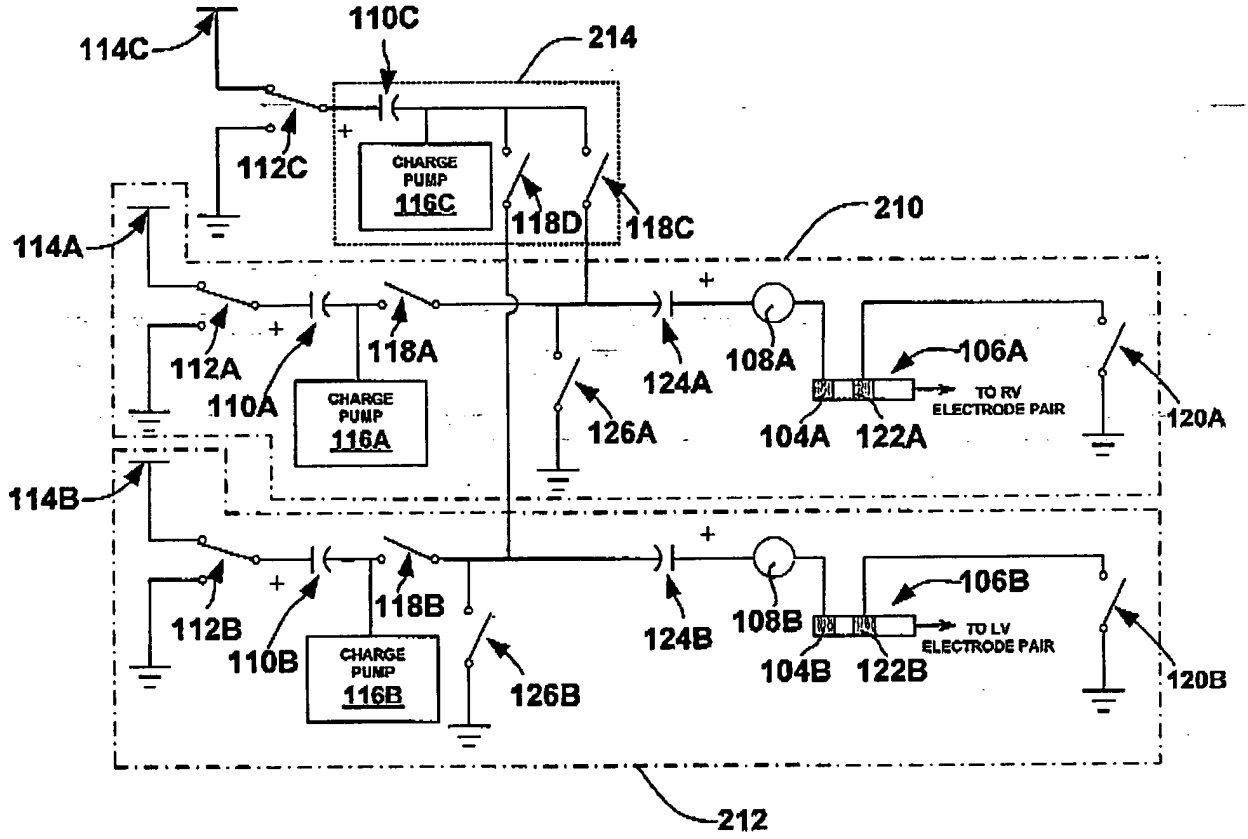
114C
110C
214
112C
CHARGE PUMP 116C
118D
118C
210
114A
112A
110A
118A
CHARGE PUMP 116A
124A
108A
106A
TO RV ELECTRODE PAIR
126A
104A
122A
120A
114B
112B
110B
118B
CHARGE PUMP 116B
126B
124B
108B
106B
TO LV ELECTRODE PAIR
104B
122B
120B
212

FIG. 12

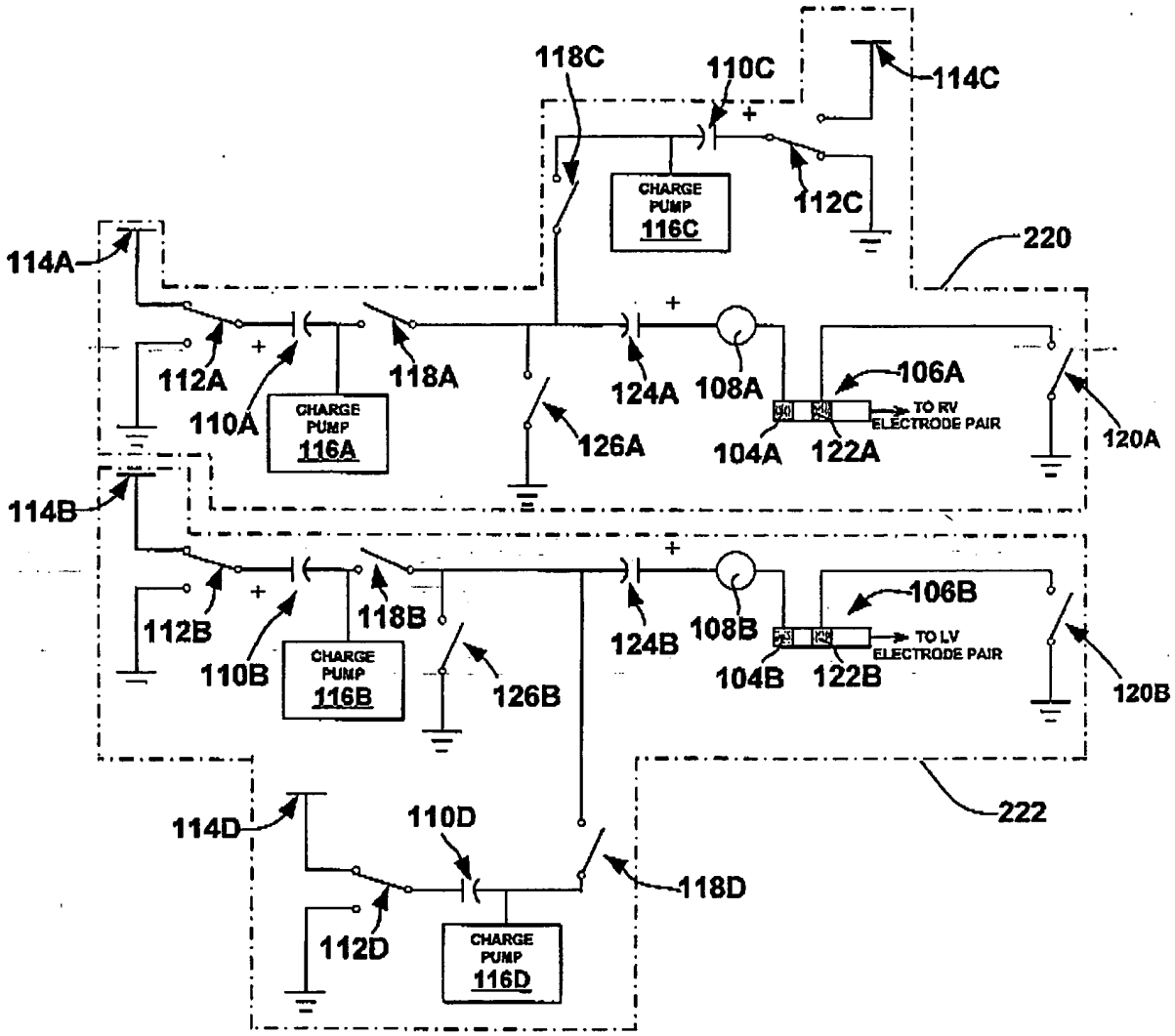
118C
110C
114C
CHARGE PUMP 116C
112C
220
114A
112A
110A
CHARGE PUMP 116A
118A
124A
108A
106A
TO RV ELECTRODE PAIR
126A
104A
122A
120A
114B
112B
110B
118B
CHARGE PUMP 116B
126B
124B
108B
106B
TO LV ELECTRODE PAIR
104B
122B
120B
222
114D
110D
118D
112D
CHARGE PUMP 116D

FIG. 13